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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,813	02/26/2001	David Edwin Thurston	65435-9001	3683

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EXAMINER

BAKER, MAURIE GARCIA

ART UNIT PAPER NUMBER

1627

DATE MAILED: 06/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,813

Applicant(s)

Thurston et al

Examiner

Maurie Garcia Baker, Ph. D.

Art Unit

1627

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ONE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-26 are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Please Note: In an effort to enhance communication with our customers and reduce processing time, Group 1627 is running a Fax Response Pilot for Written Restriction Requirements. A dedicated Fax machine is in place to receive your responses. The Fax number is 703-308-4315. A Fax cover sheet is attached to this Office Action for your convenience. We encourage your participation in this Pilot program. If you have any questions or suggestions please contact Jyothsna Venkat, Supervisory Patent Examiner, at (703) 308-2439. Thank you in advance for allowing us to enhance our customer service. Please limit the use of this dedicated Fax number to responses to Written Restrictions.

Election/Restriction

1. Restriction is required under 35 U.S.C. 121 and 372. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.
2. In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention from the following groups to which the claims must be restricted.
 - I. Claims 1-16, drawn to compounds of formula (I).
 - II. Claims 17-19, drawn to compounds of formula (II) and pharmaceutical compositions comprising the compounds.
 - III. Claim 20, drawn to the use of a compound of formula (II) for the treatment of a gene-based disease.
 - IV. Claim 21, drawn to the use of a compound of formula (II) for the treatment of bacterial, parasitic or viral infections.
 - V. Claim 22, drawn to a collection of compounds of formula (I).

- VI. Claim 23, drawn to a collection of compounds of formula (II).
- VII. Claim 24, drawn to a method of screening.
- VIII. Claim 25, drawn to the use of a compound of formula (II) in a method of target validation.
- IX. Claim 26, drawn to the use of a compound of formula (II) in a method of functional genomics.

3. The inventions listed as Groups I-IX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the reasons that follow.

4. The technical feature that links all of the claims is the compound of formula (II). The groups lack unity because the claimed compounds are known in the art as disclosed by Takanabe et al (US 4,239,683; on PTO 1449), see below. Thus the technical feature does **not** define a contribution which each of the claimed inventions, claimed as a whole, makes over the prior art.

5. Specifically, Takanabe et al disclose compounds that read directly on the instant compound of formula (II). See 1st, 3rd and 5th compounds listed in Table 2 (column 7) of the reference. For example, the 1st compound listed in Table 2 reads on the instant compounds when R₂, R₃, R₆, R₇ & R₈ = H and R₉ = OH.

6. This application contains claims directed to more than one species of the generic invention for **Groups I – VI, VIII and IX**. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1 (see paragraphs 13-15 below). The species are set forth as follows for each group with the claims corresponding to the species and the generic claims also set forth.

7. If applicant elects the invention of **Group I**, applicant is required to elect from the following species. No claims are generic.

Species of compound of formula (I)

A *specific* compound should be elected, with all variable groups defined. All atoms and bonds of the compound should be specifically shown. For compounds with "exceptions" (i.e. claims 2 and 4 and claims dependent thereon), the specific further functional group present in the molecule should be elected showing its position and structure. This election should result in the definition of a *single compound species*.

8. If applicant elects the invention of **Group II**, applicant is required to elect from the following species. No claims are generic.

Species of compound of formula (II)

A *specific* compound should be elected, with all variable groups defined. All atoms and bonds of the compound should be specifically shown. For compounds with "exceptions" (i.e. claims 2 and 4 and claims dependent thereon), the specific further functional group present in the molecule should be elected showing its position and structure. This election should result in the definition of a *single compound species*.

9. If applicant elects the invention of **Group III or Group IV**, applicant is required to elect from the following patentably distinct species.

Species of compound of formula (II) used

A *specific* compound that is used in the method should be elected, with all variable groups defined. All atoms and bonds of the compound should be specifically shown.

This election should result in the definition of a *single compound species*.

10. If applicant elects the invention of **Group V**, applicant is required to elect from the following patentably distinct species.

Species of "collection" of compounds of formula (I)

Applicant is required to elect a single compound that the collection is based upon. All variable groups and bonds between them should be defined in as much as to define a core compound of the library (collection). The election should result in a specific chemical structure (*all atoms and bonds defined*) for the core compound.

11. If applicant elects the invention of **Group VI**, applicant is required to elect from the following patentably distinct species.

Species of "collection" of compounds of formula (II)

Applicant is required to elect a single compound that the collection is based upon. All variable groups and bonds between them should be defined in as much as to define a core compound of the library (collection). The election should result in a specific chemical structure (*all atoms and bonds defined*) for the core compound.

12. If applicant elects the invention of **Group VIII or Group IX**, applicant is required to elect from the following patentably distinct species.

Species of compound of formula (II) used

A *specific* compound that is used in the method should be elected, with all variable groups defined. All atoms and bonds of the compound should be specifically shown.

This election should result in the definition of a *single compound species*.

13. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons.

14. PCT Rule 13.2 states that unity of invention shall be fulfilled when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features". It further defines "special technical feature" as "those technical features that define a contribution which each of the claimed inventions, claimed as a whole, makes over the prior art". For example, unity of invention is fulfilled if:

- (a) all alternatives have a common property; **and**
- (b) (i) a common structure is present, i. e. a significant structural element is shared by all alternatives, or
- (b) (ii) in cases where the common structure can not be the unifying criterion, all alternatives belong to a recognized class of compounds in the art to which the invention pertains. (MPEP 1850).

15. In the instant case, neither part (a) nor part (b) above is fulfilled because all claimed species do not have a common property and also do not all possess a common structure. Further, all of the species do not belong to a recognized class of compounds in the art to which they pertain (i.e. compounds are used in a variety of different treatments depending on their structure). Moreover, the claimed compounds of formula (II) are known in the art, see paragraphs 4-5 above.

For these reasons, election under these rules is proper and required.

16. Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

17. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

18. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143). Because the above restriction/election requirement is complex, a telephone call to applicants to request an oral election was not made. See MPEP § 812.01.

19. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim


remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

20. Applicant is also reminded that a 1 - month (not less than 30 days) shortened statutory period will be set for response when a written requirement is made without an action on the merits. This period may be extended under the provisions of 37 CFR 1.136(a). Such action will not be an "action on the merits" for purposes of the second action final program, see MPEP 809.02(a).

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maurie Garcia Baker, Ph.D. whose telephone number is (703) 308-0065. The examiner can normally be reached on Monday-Thursday from 9:30 to 7:00 and alternate Fridays.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jyothsna Venkat, can be reached on (703) 308-2439. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Maurie Garcia Baker, Ph.D.
June 13, 2002


MAURIE E. GARCIA, PH.D.
PATENT EXAMINER



RESTRICTION ELECTION FACSIMILE TRANSMISSION

DATE:

FROM/ATTORNEY:

FIRM:

PAGES, INCLUDING COVERSHEET:

PHONE NUMBER:

TO EXAMINER: Maurie Garcia Baker, Ph.D.

ART UNIT: 1627

SERIAL NUMBER:

FAX/TELECOPIER NUMBER: (703) 308-4315

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